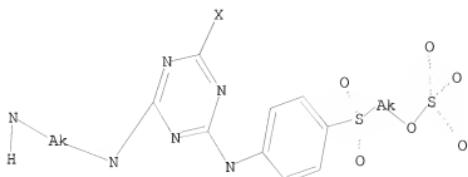


L20 STRUCTURE UPLOADED

=> d

L20 HAS NO ANSWERS

L20 STR



G1 Cy,Ak

Structure attributes must be viewed using STN Express query preparation.

=> s 120

SAMPLE SEARCH INITIATED 09:45:37 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 292 TO ITERATE

100.0% PROCESSED 292 ITERATIONS  
SEARCH TIME: 00.00.01

4 ANSWERS

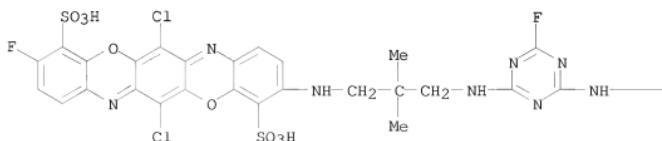
FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 4815 TO 6865  
PROJECTED ANSWERS: 4 TO 200

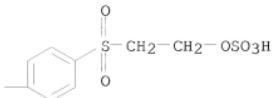
L21 4 SEA SSS SAM L20

=> d scan

L21 4 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN 4,11-Triphenyldioxazinedisulfonic acid, 6,13-dichloro-3-fluoro-10-[[3-[[4-  
fluoro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-  
yl]amino]-2,2-dimethylpropyl]amino]-  
MF C34 H28 Cl2 F2 N8 O14 S4

PAGE 1-A





\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> s 120 full  
 FULL SEARCH INITIATED 09:45:47 FILE 'REGISTRY'  
 FULL SCREEN SEARCH COMPLETED - 5840 TO ITERATE

100.0% PROCESSED 5840 ITERATIONS 68 ANSWERS  
 SEARCH TIME: 00.00.01

L22 68 SEA SSS FUL L20

=> file caplus			
COST IN U.S. DOLLARS	SINCE FILE	TOTAL	
	ENTRY	SESSION	
FULL ESTIMATED COST	178.36	406.45	
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL	
	ENTRY	SESSION	
CA SUBSCRIBER PRICE	0.00	-6.40	

FILE 'CAPLUS' ENTERED AT 09:45:51 ON 25 FEB 2008  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 25 Feb 2008 VOL 148 ISS 9  
 FILE LAST UPDATED: 24 Feb 2008 (20080224/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.  
 They are available for your review at:

<http://www.cas.org/infopolicy.html>

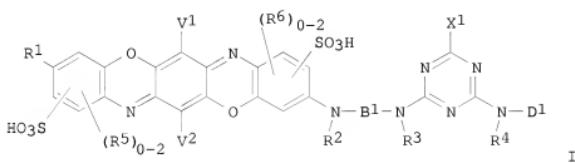
=> s 122

=> d 123 1-17 ibib abs hitstr

L23 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2007:761252 CAPLUS <>LOGINID::20080225>>  
DOCUMENT NUMBER: 147:167741  
TITLE: Triphenodioxazine reactive dyes, a process for their  
preparation and their use  
INVENTOR(S): Reichert, Hans; Verdugo, Thomas  
PATENT ASSIGNEE(S): Huntsman Advanced Materials (Switzerland) G.m.b.H.,  
Switz.  
SOURCE: PCT Int. Appl., 55pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007077129	A2	20070712	WO 2006-EP69978	20061220
WO 2007077129	A3	20071101		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, PH, TJ, TM, AR, EA, EP, IQ				

RG, RE, MD, RO, TS, TM, AF, EA, EP, OA  
PRIORITY APPLN. INFO.: EP 2006-100014 A 2006102  
GT



AB The invention relates to reactive dyes of formula I: wherein R1 is halogen, R2, R3 and R4 are each independently of the others hydrogen or unsubstituted or substituted C1-C4alkyl, (R5)0-2 and (R6)0-2 each independently of the other denote from 0 to 2 identical or different substituents from the group C1-C4 alkyl, C1-C4 alkoxy, C2-C4 alkanoylamino, carboxy, sulfo, carbamoyl, N-C1-C4 alkylcarbamoyl,

N,N-di-C1-C4 alkylcarbamoyl, C1-C 4 alkylsulfonyl, sulfamoyl, N-C1-C4 alkylsulfamoyl and N,N-di-C1-C4 alkylsulfamoyl, B1 is an aliphatic or aromatic bridging member, D1 is a radical of the aliphatic, aromatic or heterocyclic series substituted by at least one fiber-reactive group, V1 and V2 are each independently of the other hydrogen, halogen, C1-C4 alkyl, C1-C4 alkoxy, or unsubstituted or substituted Ph, unsubstituted or substituted phenoxy, unsubstituted or substituted C2-C6 alkanoylamino or unsubstituted or substituted benzoylamino, and X1 is halogen, hydroxy, C1-C4 alkoxy, C1-C4 alkylthio, unsubstituted or substituted amino or an N-heterocycle which may contain further hetero atom(s). The reactive dyes are suitable for the dyeing of an extremely wide variety of fiber materials, especially cellulosic fiber materials, and yield dyeings having good all round fastness properties.

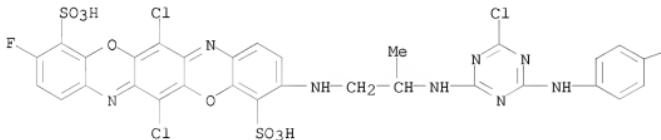
IT 943843-73-0P 943843-81-0P 943843-94-5P  
 943843-95-6P 943844-08-4P 943844-10-8P  
 943844-24-4P 943844-26-6P 943844-63-1P  
 943844-64-2P 943844-66-4P 943844-70-0P  
 943844-71-1P 943844-72-2P 943844-73-3P  
 943844-74-4P 943844-82-4P 943844-83-5P  
 943844-84-6P 943844-88-0P 943844-89-1P  
 943844-90-4P 943844-91-5P 943844-92-6P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (brilliant blue dye; production of triphenodioxazine reactive dyes for dyeing fabrics with good fastness properties)

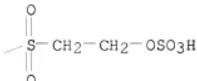
RN 943843-73-0 CAPLUS

CN 4,11-Triphenodioxazinedisulfonic acid, 6,13-dichloro-3-[[2-[[4-chloro-6-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]propyl]amino]-10-fluoro- (CA INDEX NAME)

PAGE 1-A



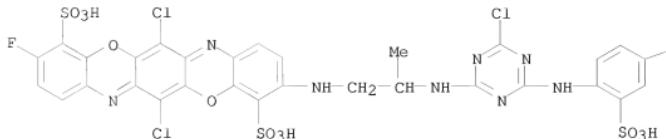
PAGE 1-B



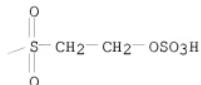
RN 943843-81-0 CAPLUS

CN 4,11-Triphenodioxazinedisulfonic acid, 6,13-dichloro-3-[[2-[[4-chloro-6-[[2-sulfo-4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]propyl]amino]-10-fluoro- (CA INDEX NAME)

PAGE 1-A



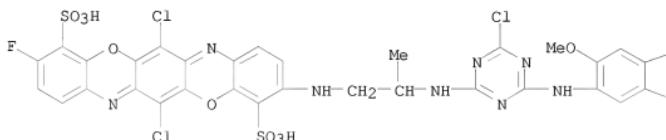
PAGE 1-B



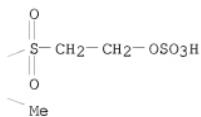
RN 943843-94-5 CAPLUS

CN 4,11-Triphenodioxazinedisulfonic acid, 6,13-dichloro-3-[(2-[[4-chloro-6-([2-methoxy-5-methyl-4-[(2-sulfoxyethyl)sulfonyl]phenyl]amino)-1,3,5-triazin-2-yl]amino]propyl)amino]-10-fluoro- (CA INDEX NAME)

PAGE 1-A



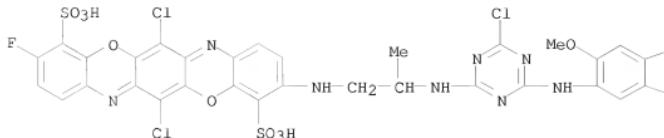
PAGE 1-B



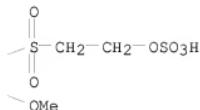
RN 943843-95-6 CAPLUS

CN 4,11-Triphenodioxazinedisulfonic acid, 6,13-dichloro-3-[(2-[[4-chloro-6-([2,5-dimethoxy-4-[(2-sulfoxyethyl)sulfonyl]phenyl]amino)-1,3,5-triazin-2-yl]amino]propyl)amino]-10-fluoro- (CA INDEX NAME)

PAGE 1-A



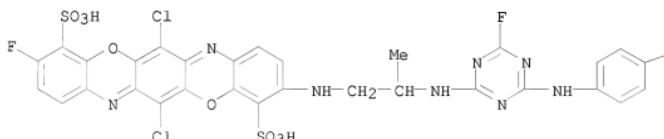
PAGE 1-B



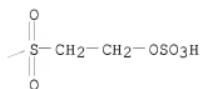
RN 943844-08-4 CAPLUS

CN 4,11-Triphenodioxazine disulfonic acid, 6,13-dichloro-3-fluoro-10-[(2-[(4-fluoro-6-[[4-[(2-sulfoxyethyl)sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl)amino]propyl)amino]- (CA INDEX NAME)

PAGE 1-A

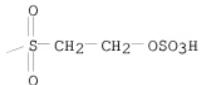
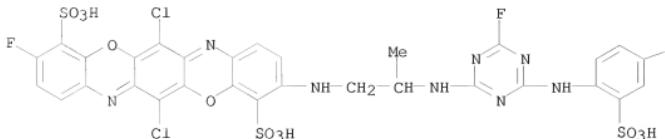


PAGE 1-B

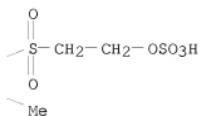
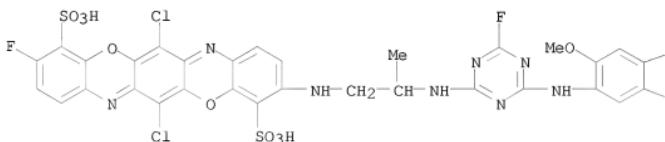


RN 943844-10-8 CAPLUS

CN 4,11-Triphenodioxazine disulfonic acid, 6,13-dichloro-3-fluoro-10-[(2-[(4-fluoro-6-[[2-sulfo-4-[(2-sulfoxyethyl)sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl)amino]propyl)amino]- (CA INDEX NAME)

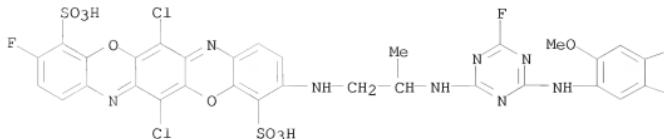


RN 943844-24-4 CAPLUS  
CN 4,11-Triphenodioxazinedisulfonic acid, 6,13-dichloro-3-fluoro-10-[(2-[(4-fluoro-6-[2-methoxy-5-methyl-4-[(2-(sulfooxy)ethyl]sulfonyl]phenyl)amino]-1,3,5-triazin-2-yl)amino]propyl]amino]- (CA INDEX NAME)

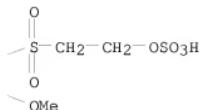


RN 943844-26-6 CAPLUS  
CN 4,11-Triphenodioxazine disulfonic acid, 6,13-dichloro-3-[[2-[[4-[[2,5-dimethoxy-4-[(2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-6-fluoro-1,3,5-triazin-2-yl]amino]propyl]amino]-10-fluoro- (CA INDEX NAME)

PAGE 1-A



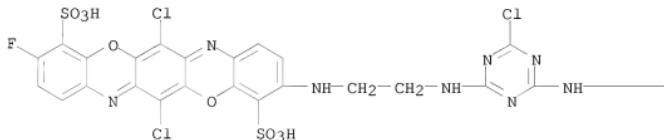
PAGE 1-B



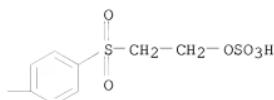
RN 943844-63-1 CAPLUS

CN 4,11-Triphenodioxazine disulfonic acid, 6,13-dichloro-3-[(2-[(4-chloro-6-[[4-[(2-sulfoxy)ethyl]sulfonyl]phenyl]amino)-1,3,5-triazin-2-yl]amino]ethyl]amino]-10-fluoro- (CA INDEX NAME)

PAGE 1-A

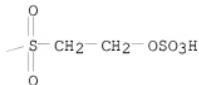
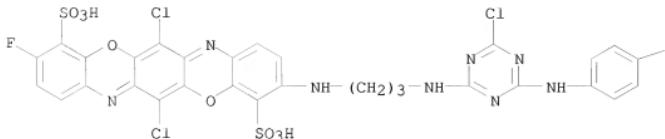


PAGE 1-B

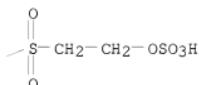
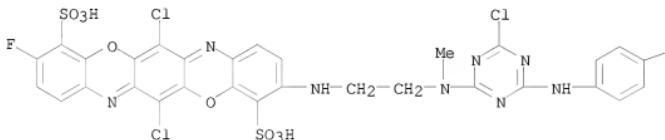


RN 943844-64-2 CAPLUS

CN 4,11-Triphenodioxazine disulfonic acid, 6,13-dichloro-3-[(3-[(4-chloro-6-[[4-[(2-sulfoxy)ethyl]sulfonyl]phenyl]amino)-1,3,5-triazin-2-yl]amino)propyl]amino]-10-fluoro- (CA INDEX NAME)

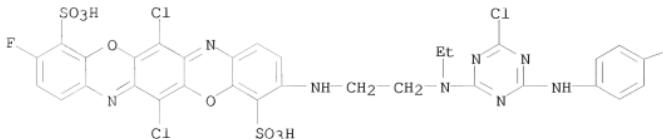


RN 943844-66-4 CAPLUS  
 CN 4,11-Triphenodioxazinedisulfonic acid, 6,13-dichloro-3-[(2-[(4-chloro-6-[[4-[(2-sulfoxy)ethyl]sulfonyl]phenyl]amino)-1,3,5-triazin-2-yl]methylamino)ethyl]amino]-10-fluoro- (CA INDEX NAME)

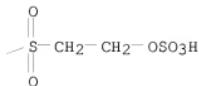


RN 943844-70-0 CAPLUS  
 CN 4,11-Triphenodioxazinedisulfonic acid, 6,13-dichloro-3-[(2-[(4-chloro-6-[[4-[(2-sulfoxy)ethyl]sulfonyl]phenyl]amino)-1,3,5-triazin-2-yl]ethylamino)ethyl]amino]-10-fluoro- (CA INDEX NAME)

PAGE 1-A

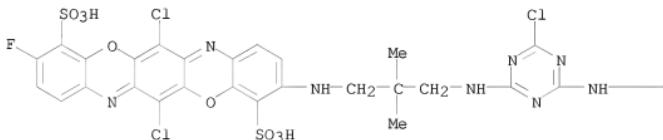


PAGE 1-B

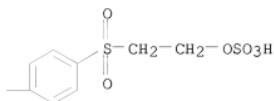


RN 943844-71-1 CAPLUS  
CN 4,11-Triphenodioxazinedisulfonic acid, 6,13-dichloro-3-[(3-[[4-chloro-6-[[4-[(2-sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino)-2,2-dimethylpropyl]amino]-10-fluoro- (CA INDEX NAME)

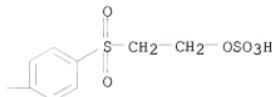
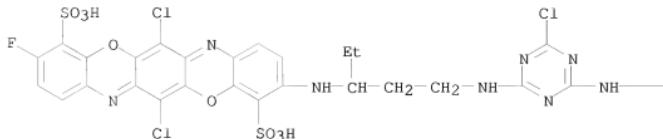
PAGE 1-A



PAGE 1-B

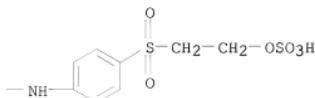
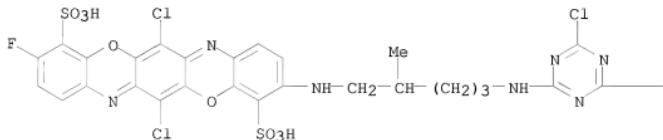


RN 943844-72-2 CAPLUS  
CN 4,11-Triphenodioxazinedisulfonic acid, 6,13-dichloro-3-[(3-[[4-chloro-6-[[4-[(2-sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino)-1-ethylpropyl]amino]-10-fluoro- (CA INDEX NAME)



RN 943844-73-3 CAPLUS

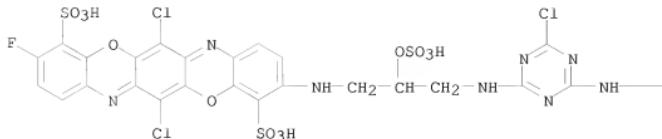
CN 4,11-Triphenodioxazine disulfonic acid, 6,13-dichloro-3-[(5-[(4-chloro-6-[[4-[(2-sulfoxy)ethyl]sulfonyl]phenyl]amino)-1,3,5-triazin-2-yl]amino)-2-methylpentyl]amino]-10-fluoro- (CA INDEX NAME)



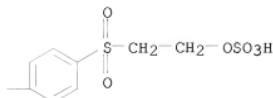
RN 943844-74-4 CAPLUS

CN 4,11-Triphenodioxazine disulfonic acid, 6,13-dichloro-3-[(3-[(4-chloro-6-[[4-[(2-sulfoxy)ethyl]sulfonyl]phenyl]amino)-1,3,5-triazin-2-yl]amino)-2-sulfoxypropyl]amino]-10-fluoro- (CA INDEX NAME)

PAGE 1-A

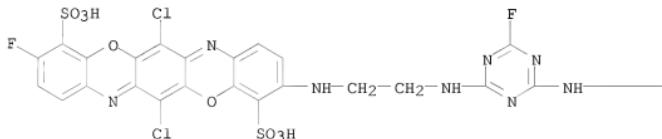


PAGE 1-B

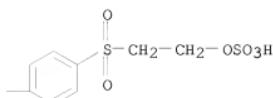


RN 943844-82-4 CAPLUS  
CN 4,11-Triphenodioxazine disulfonic acid, 6,13-dichloro-3-fluoro-10-[(2-[(4-fluoro-6-[(4-[(2-sulfoethoxy)ethyl]sulfonyl]phenyl)amino]-1,3,5-triazin-2-yl)amino]ethyl]amino]- (CA INDEX NAME)

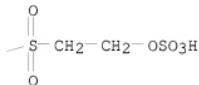
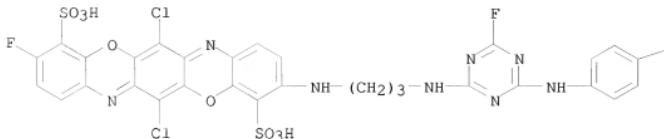
PAGE 1-A



PAGE 1-B

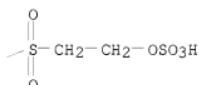
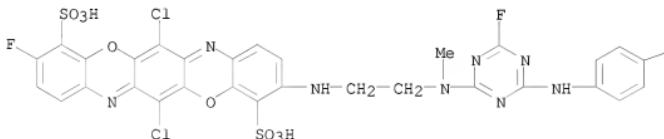


RN 943844-83-5 CAPLUS  
CN 4,11-Triphenodioxazine disulfonic acid, 6,13-dichloro-3-fluoro-10-[(3-[(4-[(2-sulfoethyl)amino]propyl]amino)-1,3,5-triazin-2-yl)amino]ethyl]amino]- (CA INDEX NAME)



RN 943844-84-6 CAPLUS

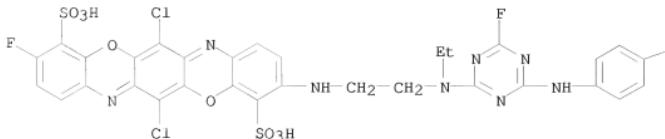
CN 4,11-Triphenodioxazinedisulfonic acid, 6,13-dichloro-3-fluoro-10-[(2-[(4-fluoro-6-[(2-sulfoxyethyl)sulfonyl]phenyl)amino]-1,3,5-triazin-2-yl)methylamino]ethylamino] - (CA INDEX NAME)



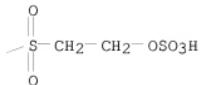
RN 943844-88-0 CAPLUS

CN 4,11-Triphenodioxazinedisulfonic acid, 6,13-dichloro-3-[(2-[(4-ethyl[4-fluoro-6-[(2-sulfoxyethyl)sulfonyl]phenyl)amino]-1,3,5-triazin-2-yl)methylamino]ethylamino]-10-fluoro- (CA INDEX NAME)

PAGE 1-A

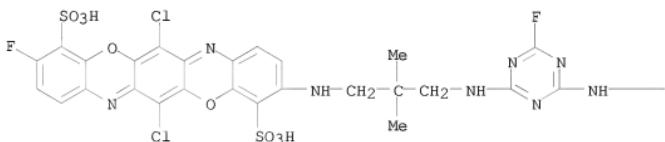


PAGE 1-B

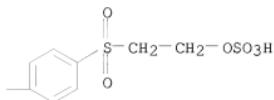


RN 943844-89-1 CAPLUS  
CN 4,11-Triphenodioxazine disulfonic acid, 6,13-dichloro-3-fluoro-10-[(3-[(4-fluoro-6-[(4-[(2-sulfooxy)ethyl]sulfonyl]phenyl)amino]-1,3,5-triazin-2-yl)amino]-2,2-dimethylpropyl]amino]- (CA INDEX NAME)

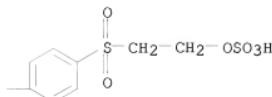
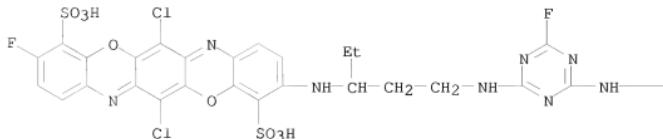
PAGE 1-A



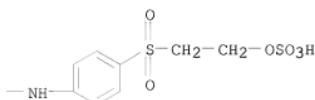
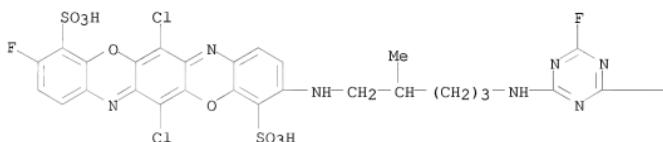
PAGE 1-B



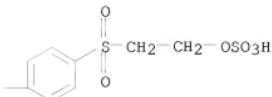
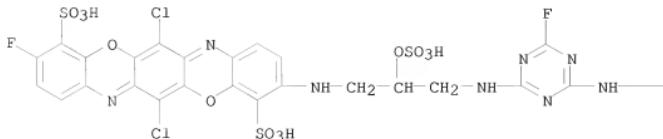
RN 943844-90-4 CAPLUS  
CN 4,11-Triphenodioxazine disulfonic acid, 6,13-dichloro-3-[(1-ethyl-3-[(4-fluoro-6-[(4-[(2-sulfoxy)ethyl]sulfonyl]phenyl)amino]-1,3,5-triazin-2-ylamino]propyl)amino]-10-fluoro- (CA INDEX NAME)



RN 943844-91-5 CAPLUS  
 CN 4,11-Triphenodioxazine disulfonic acid, 6,13-dichloro-3-fluoro-10-[(5-[(4-fluoro-6-[(4-[(2-sulfoxy)ethyl]sulfonyl]phenyl)amino]-1,3,5-triazin-2-yl)amino]-2-methylpentyl]amino]- (CA INDEX NAME)



RN 943844-92-6 CAPLUS  
 CN 4,11-Triphenodioxazine disulfonic acid, 6,13-dichloro-3-fluoro-10-[(3-[(4-[(2-sulfoxy)ethyl]sulfonyl]phenyl)amino]-1,3,5-triazin-2-yl)amino]-2-(sulfoxy)propyl]amino]- (CA INDEX NAME)

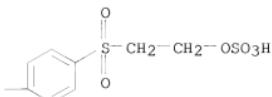
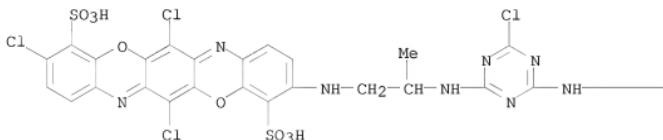


IT 943845-00-9P 943845-01-0P 943845-02-1P  
943845-03-2P 943845-04-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (production of triphenodioxazine reactive dyes for dyeing fabrics with good fastness properties)

RN 943845-00-9 CAPLUS

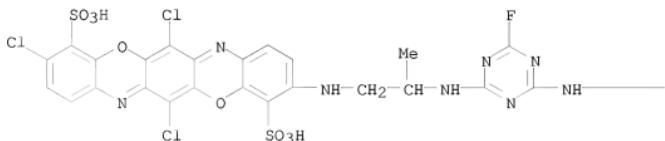
CN 4,11-Triphenodioxazine disulfonic acid, 3,6,13-trichloro-10-[[2-[[4-chloro-6-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]propyl]amino]- (CA INDEX NAME)



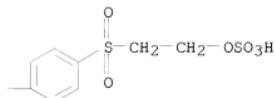
RN 943845-01-0 CAPLUS

CN 4,11-Triphenodioxazine disulfonic acid, 3,6,13-trichloro-10-[(2-[(4-fluoro-6-[(4-[2-(sulfoxy)ethyl]sulfonyl]phenyl)amino]-1,3,5-triazin-2-yl)amino]propyl)amino]- (CA INDEX NAME)

PAGE 1-A



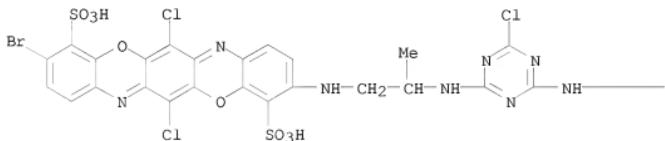
PAGE 1-B



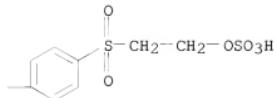
RN 943845-02-1 CAPLUS

CN 4,11-Triphenodioxazinedisulfonic acid, 3-bromo-6,13-dichloro-10-[(2-[(4-chloro-6-[(4-[(2-sulfoxyethyl)sulfonyl]phenyl]amino)-1,3,5-triazin-2-yl]amino)propyl]amino]- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

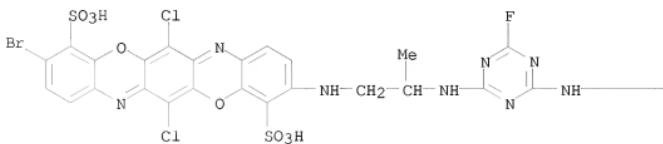


RN 943845-03-2 CAPLUS

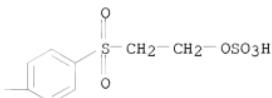
CN 4,11-Triphenodioxazinedisulfonic acid, 3-bromo-6,13-dichloro-10-[[2-[[4-

fluoro-6-[[4-[(2-(sulfooxy)ethyl)sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]propyl]amino]- (CA INDEX NAME)

PAGE 1-A



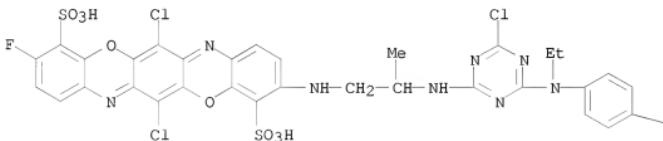
PAGE 1-B



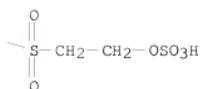
BN 943845-04-3 CAPIUS

CN 4,11-Triphenodioxazinedisulfonic acid, 6,13-dichloro-3-[(2-[(4-chloro-6-ethyl)amino]propyl)amino]-1,3,5-triazin-2-yl)amino]propylamino-10-fluoro- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L23 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2007:175493 CAPLUS <<LOGINID::20080225>>  
 DOCUMENT NUMBER: 146:253562  
 TITLE: Azo reactive dyes, their preparation and their application for cotton fiber and fabric dyeing and printing  
 INVENTOR(S): Christnacher, Hubert Jean Luc; Tzikas, Athanassios;  
 Roentgen, Georg  
 PATENT ASSIGNEE(S): Huntsman Advanced Materials (Switzerland) GmbH, Switz.  
 SOURCE: PCT Int. Appl., 25pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007017425	A2	20070215	WO 2006-EP64937	20060802
WO 2007017425	A3	20070405		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JE, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BE, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
PRIORITY APPLN. INFO.:			EP 2005-107317	A 20050809
OTHER SOURCE(S):		MARPAT 146:253562		
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Reactive dyes (I), wherein B = an aliphatic bridging member, R1 = Cl-4 alkyl, halogen, or  $-SO_2-Z$  radical, R2-3 = Cl-4 alkoxy, R4-6 = H, unsubstituted or substituted Cl-4 alkyl, k, q = 0 or 1, p = 0, 1, 2, X1-2 = halogen, and T = halogen, a non-fiber-reactive substituent or fiber-reactive radicals, are suitable especially for dyeing cellulose-containing fibers or fabrics, especially

cotton fibers and fabrics. Thus, reactive dye II was synthesized from aniline-2,5-disulfonic acid, cyanuric fluoride, 1,2-propylenediamine, and compound III.

IT 925210-36-2P

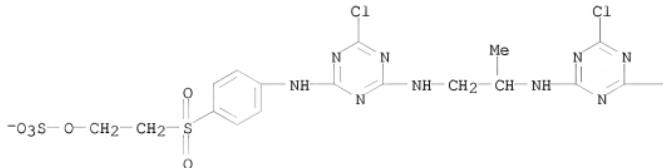
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (preparation of azo reactive dyes for cotton fiber and fabric dyeing and printing)

RN 925210-36-2 CAPLUS

CN Cuprate(3-), [7-[(4-chloro-6-[[2-[[4-chloro-6-[(4-[[2-  
 (sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-1-

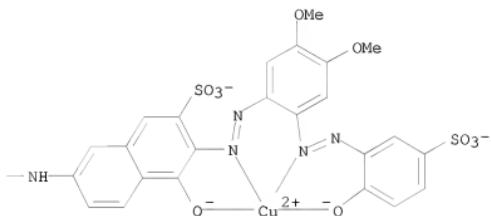
methylethyl]amino]-1,3,5-triazin-2-yl]amino]-4-(hydroxy- $\kappa$ O)-3-[2-[2-[2-(hydroxy- $\kappa$ O)-5-sulfophenyl]diazenyl- $\kappa$ N1]-4,5-dimethoxyphenyl]diazenyl- $\kappa$ N1]-2-naphthalenesulfonato(5-)]-, hydrogen (1:3) (CA INDEX NAME)

PAGE 1-A



●3 H<sup>+</sup>

PAGE 1-B



L23 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:570933 CAPLUS <>LOGINID::20080225>>  
DOCUMENT NUMBER: 143:98900  
TITLE: Reactive polysaccharide derivatives, their preparation and their use  
INVENTOR(S): Hall-Gouille, Veronique; Tzikas, Athanassios  
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.  
SOURCE: PCT Int. Appl., 69 pp.  
DOCUMENT TYPE: Patent  
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005058975	A1	20050630	WO 2004-EP53332	20041208
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1694713	A1	20060830	EP 2004-820464	20041208
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
CN 1894283	A	20070110	CN 2004-80037220	20041208
BR 2004017593	A	20070320	BR 2004-17593	20041208
US 2007113356	A1	20070524	US 2006-583012	20060615
IN 2006CN02145	A	20070706	IN 2006-CN2145	20060616
PRIORITY APPLN. INFO.:			EP 2003-104773	A 20031218
			WO 2004-EP53332	W 20041208

OTHER SOURCE(S): MARPAT 143:98900

AB A reactive polysaccharide derivative of  $(HO)mPS[N(Q1)BAZ1]n$  or  $(HO)mPS[N(Q3)2Z]n$  ( $A = O, S, N(Q2)$ ;  $Q1 = H$ , radical-BAZ1, optionally substituted Cl-10 aryl, Cl-12 alkyl which may be interrupted by O and is unsubstituted or substituted;  $Q2, Q3 = H$ , optionally substituted Cl-10 aryl, Cl-12 alkyl which may be interrupted by O and is unsubstituted or substituted;  $B =$  aliphatic or aromatic bridge;  $Z1, Z2 =$  reactive radical of the vinylsulfonyl series, the haloacryloyl series or the heterocyclic series;  $PS =$  polysaccharide radical;  $m = 0, 1$  or an integer greater than 1;  $n = 1$  or an integer greater than 1; the sum of  $n+m$  corresponds to the original number of HO groups in the polysaccharide mol.) is useful as a finishing agent for textile fibers and for other applications. Mono(6-O-p-toluenesulfonyl)- $\beta$ -cyclodextrin was modified with N-ethylethylenediamine to give a derivative for textile finishing.

IT 856428-47-2P 856428-52-9P 856428-54-1P

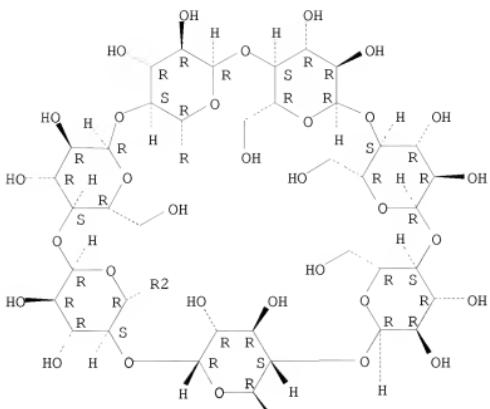
856428-55-2P 856428-57-4P

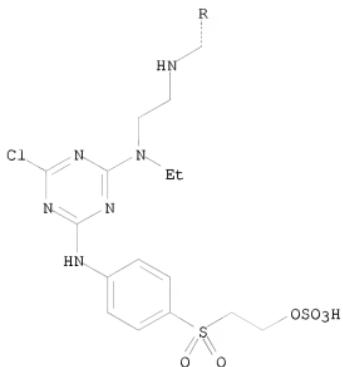
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(manufacture of reactive polysaccharide derivs. for finishing fabrics)

RN 856428-47-2 CAPLUS

CN  $\beta$ -Cyclodextrin, 6A-[[2-[[4-chloro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]ethylamino]ethyl]amino]-6A-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

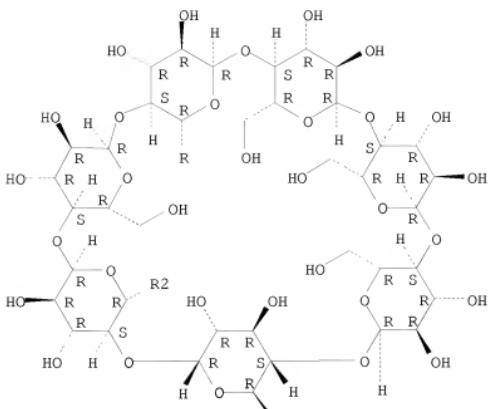


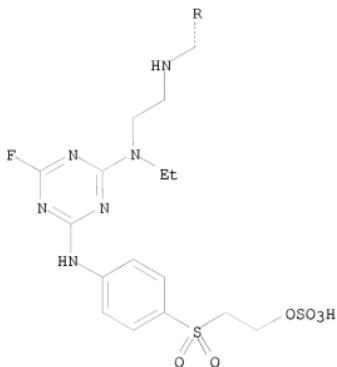


RN 856428-52-9 CAPLUS

CN  $\beta$ -Cyclodextrin, 6A-deoxy-6A-[[2-[ethyl[4-fluoro-6-[[4-[[2-(sulfoxyethylsulfonyl)phenyl]amino]-1,3,5-triazin-2-yl]amino]ethyl]amino]- (9CI) (CA INDEX NAME)

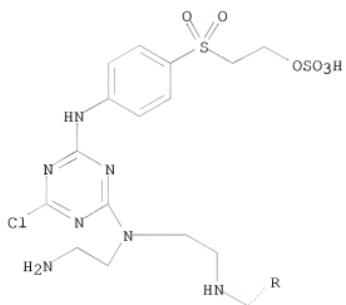
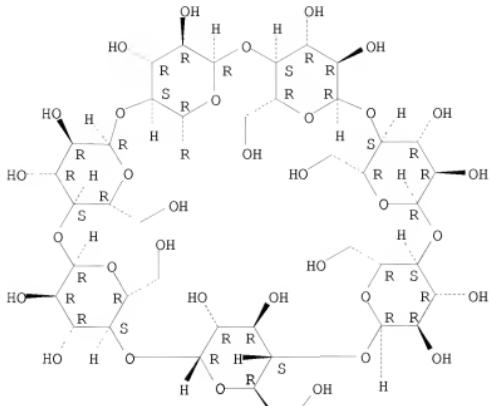
Absolute stereochemistry.





RN 856428-54-1 CAPLUS  
 CN  $\beta$ -Cyclodextrin, 6A-[2-[(2-aminoethyl)[4-chloro-6-[[4-[(2-sulfooxyethyl)sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]ethyl]amino]-6A-deoxy- (9CI) (CA INDEX NAME)

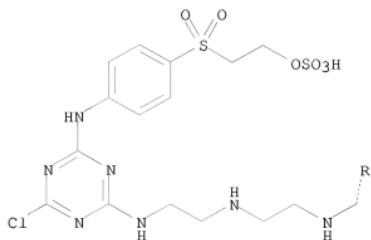
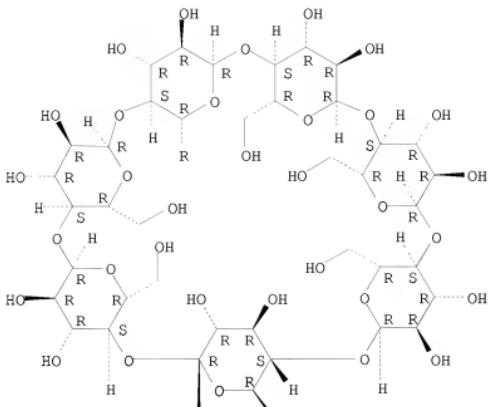
Absolute stereochemistry.



RN 856428-55-2 CAPLUS

CN  $\beta$ -Cyclodextrin, 6A-[2-[(4-chloro-6-[(4-[(2-(sulfooxy)ethyl)sulfonyl]phenyl)amino]-1,3,5-triazin-2-yl)amino]ethyl]amino]ethyl]amino]-6A-deoxy- (9CI) (CA INDEX NAME)

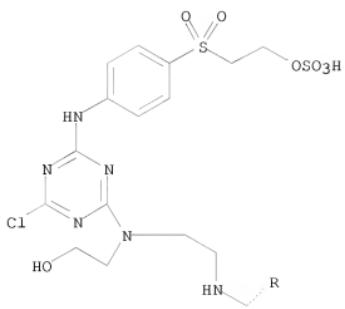
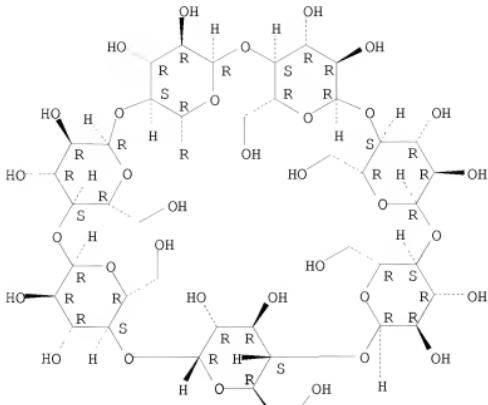
Absolute stereochemistry.



RN 856428-57-4 CAPLUS

CN  $\beta$ -Cyclodextrin, 6A-[2-[[4-chloro-6-[(4-[(2-(sulfooxy)ethyl]sulfonyl)phenyl]amino]-1,3,5-triazin-2-yl](2-hydroxyethyl)amino]ethyl]amino]-6A-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



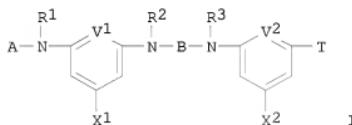
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2002:51717 CAPLUS <<LOGINID::20080225>>  
DOCUMENT NUMBER: 136:119798

TITLE: Printing cellulosic fiber materials without an additional fixing process step  
 INVENTOR(S): Tzikas, Athanassios; Reichert, Hans; Klier, Herbert  
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.  
 SOURCE: PCT Int. Appl., 54 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002004741	A1	20020117	WO 2001-EP7362	20010628
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
TW 243842	B	20051121	TW 2001-90114810	20010619
EP 1299594	A1	20030409	EP 2001-953180	20010628
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004502886	T	20040129	JP 2002-509589	20010628
CN 1660942	A	20050831	CN 2005-10054704	20010628
US 2002032318	A1	20020314	US 2001-899439	20010705
US 6623533	B2	20030923		
US 2004055098	A1	20040325	US 2003-618922	20030714
US 6953845	B2	20051011		
PRIORITY APPLN. INFO.:			EP 2000-810594	A 20000707
			CN 2001-812474	A3 20010628
			WO 2001-EP7362	W 20010628
			US 2001-899439	A3 20010705

OTHER SOURCE(S): MARPAT 136:119798  
GI



AB Printing cellulosic fiber materials comprises fiber material brought into contact with reactive dyes I, where A is the radical of a monoazo, polyazo, metal complex azo, anthraquinone, phthalocyanine, formazan or dioxazine chromophore, R1, R2 and R3 = H or unsubstituted or substituted C1-4-alkyl, X1 and X2 = halogen, B is an organic bridging member, T is a reactive radical, R4 = H, C1-4-alkyl unsubstituted or substituted by hydroxy, sulfo, sulfato, carboxy or by CN, or a radical alkR5SO2Y, where

R5 = is H, OH, sulfo, sulfato, carboxy, CN, halogen, C1-C4alkoxycarbonyl, C1-C4alkanoyloxy, carbamoyl or SO2Y, R6 = H or C1-C4alkyl, alk and alkyl are linear or branched C1-C6alkylene, alyrene is an unsubstituted or sulfo, carboxy, OH, C1-C4alkyl, C1-C4alkoxy- or halo-substituted phenylene or naphthylene radical, Y = vinyl or a radical  $\text{CH}_2\text{CH}_2\text{U}$  and U is a leaving group, Y1 =  $\text{CH}(\text{Hal})\text{CH}_2\text{Hal}$  or  $\text{C}(\text{Hal})=\text{CH}_2$ , where Hal is Cl or Br, W = SO2NR6, CONR6 or NR6CO, Q = O or NR6, n = 0 or 1, and V1 and V2 = N, CH, CCl or CF. The prints obtained are distinguished by brilliant color shades and good all around properties.

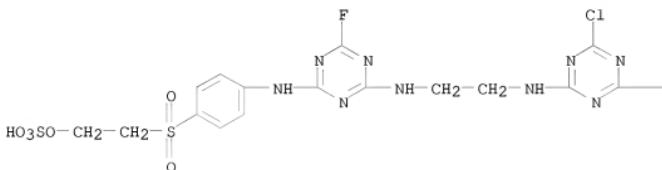
IT 390368-45-3P

RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)  
(dyeing by; reactive dye printing cellulosic materials without addnl. fixing process step)

fixing process is

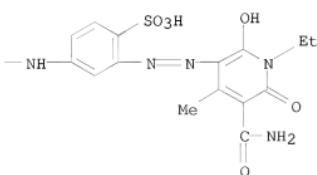
BN 39966-45-3 CARBOS  
 CN Benzenesulfonic acid, 2-[[5-(aminocarbonyl)-1-ethyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl]azo]-4-[[4-chloro-6-[[2-[[4-fluoro-6-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]methyl]ethyl]amino]-1,3,5-triazin-2-yl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A



D1-Me

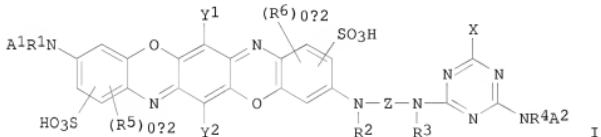
PAGE 1-B



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 20001665629 CAPLUS <<LOGINID::20080225>>  
DOCUMENT NUMBER: 133:239370  
TITLE: Triphenodioxazine reactive dyes, their production and their use  
INVENTOR(S): Reichert, Hans; Verdugo, Thomas  
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.  
SOURCE: Eur. Pat. Appl., 46 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1036825	A1	20000920	EP 2000-810188	20000307
EP 1036825	B1	20040506		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TW 506993	B	20021021	TW 2000-89102970	20000221
AT 266061	T	20040515	AT 2000-810188	20000307
ES 2219289	T3	20041201	ES 2000-810188	20000307
US 6592634	B1	20030715	US 2000-521711	20000309
CN 1266870	A	20000920	CN 2000-104094	20000314
JP 2000281921	A	20001010	JP 2000-71448	20000315
HK 1029133	A1	20050114	HK 2000-108516	20001228
PRIORITY APPLN. INFO.:			EP 1999-810229	A 19990315
OTHER SOURCE(S):		MARPAT 133:239370		
GI				



AB The reactive dyes (I; R1-R4 = H, optionally substituted C1-4-alkyl; R5, R6 = halogen, carboxy, sulfo, carbamoyl, organic group; A1 = H, optionally substituted C1-4-alkyl, optionally substituted Ph or naphthyl; A2 = fiber-reactive group-substituted alkyl, aryl, heterocyclic moiety; Y1, Y2 = H, halogen, organic group; Z = aliphatic or aromatic connecting group) with good fastness, color yield, and application (no alkaline aftertreatment required) properties are obtained from the requisite p-phenylenediamines, benzoquinones, and halotriazines. Thus, 2,3,5-trichloro-6-methoxy-1,4-benzoquinone was condensed with 5-amino-2-(2-hydroxyethylamino)benzenesulfonic acid and the orange product was further treated with 5-amino-2-(2-aminopropylamino)benzenesulfonic acid. Cyclization of the product followed by condensation with cyanuric chloride and

4-(2-sulfatoethylsulfonyl)aniline gave a brilliant blue dye with a chlorotriazine and 2 vinyl sulfone-generating groups, having good fastness properties on cotton.

IT 293756-03-3P 293756-04-4P

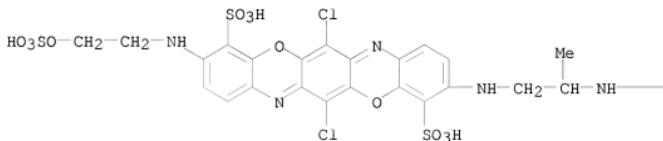
RL: IMP (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(blue dye; production of reactive triphenodioxazine dyes)

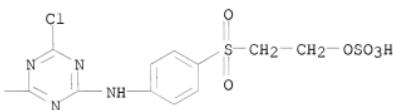
RN 293756-03-3 CAPLUS

CN 4,11-Triphenodioxazinedisulfonic acid, 6,13-dichloro-3-[(2-[(4-chloro-6-[(4-[(2-sulfoxyethyl)sulfonyl]phenyl)amino]-1,3,5-triazin-2-yl)amino]propyl)amino]-10-[(2-sulfoxyethyl)amino]- (CA INDEX NAME)

PAGE 1-A



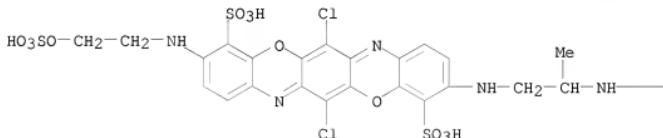
PAGE 1-B

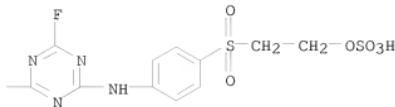


RN 293756-04-4 CAPLUS

CN 4,11-Triphenodioxazinedisulfonic acid, 6,13-dichloro-3-[(2-[(4-fluoro-6-[(4-[(2-sulfoxyethyl)sulfonyl]phenyl)amino]-1,3,5-triazin-2-yl)amino]propyl)amino]-10-[(2-sulfoxyethyl)amino]- (CA INDEX NAME)

PAGE 1-A

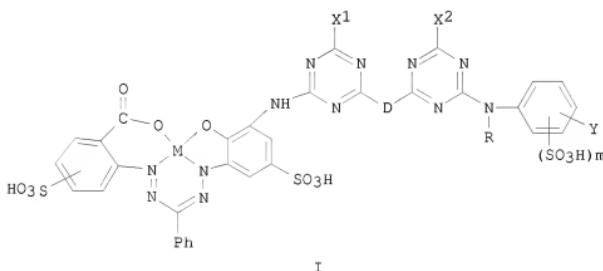




REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1999:505688 CAPLUS <<LOGINID::20080225>>  
 DOCUMENT NUMBER: 131:145686  
 TITLE: Multifunctional reactive blue formazan dyes  
 INVENTOR(S): Phillips, Duncan Adrian Sidney; Taylor, John Anthony;  
 Chen, Wen-Jang  
 PATENT ASSIGNEE(S): Everlight USA, Inc., USA  
 SOURCE: U.S., 19 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5936073	A	19990810	US 1998-205353	19981204
PRIORITY APPLN. INFO.:			US 1998-205353	19981204
OTHER SOURCE(S):	MARPAT	131:145686		



AB The dyes have the formula I [D = NH(CH<sub>2</sub>)<sub>p</sub>NH, NR<sub>1</sub>(CH<sub>2</sub>)<sub>q</sub>C<sub>6</sub>H<sub>4</sub>-n(SO<sub>3</sub>H)<sub>n</sub>NH; M = Cu, Ni; R, R<sub>1</sub> = H, C<sub>1</sub>-4 alkyl; X<sub>1</sub>, X<sub>2</sub> = F, Cl, Br, quaternary ammonium; Y = SO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub> or precursor, NHCOC<sub>2</sub>CH<sub>2</sub> or precursor; T = OH, Cl, Br, OSO<sub>3</sub>H; m = 0, 1; p, q = 0-4]. These dyes have deep-dyeing ability, and are

suitable for dyeing and printing of materials containing cellulose fibers, such as cotton, synthetic cotton, hemp, and synthetic hemp.

IT 236386-99-5P 236387-00-1P

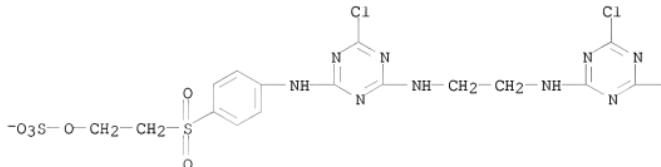
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(blue; preparation of multifunctional reactive formazan dyes)

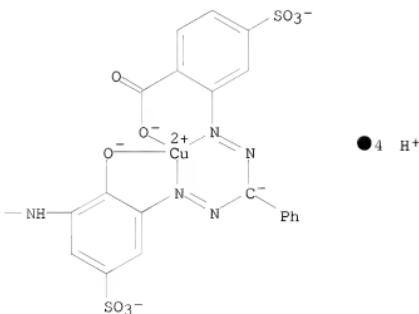
RN 236386-99-5 CAPLUS

CN Cuprate(4-), [2-[[[3-[[4-chloro-6-[[2-[[4-chloro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]ethyl]amino]-1,3,5-triazin-2-yl]amino]-2-(hydroxy- $\kappa$ O)-5-sulfophenyl]azo- $\kappa$ N2]phenylmethyl]azo- $\kappa$ N1]-4-sulfobenzoato(6-)- $\kappa$ O]-, tetrahydrogen (9CI) (CA INDEX NAME)

PAGE 1-A



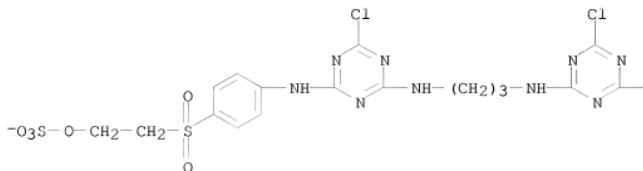
PAGE 1-B



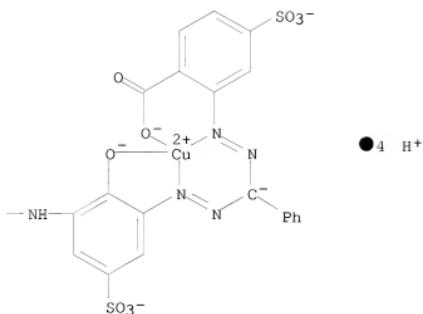
RN 236387-00-1 CAPLUS

CN Cuprate(4-), [2-[[3-[[4-chloro-6-[[3-[[4-chloro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]propyl]amino]-1,3,5-triazin-2-yl]amino]-2-(hydroxy- $\kappa$ O)-5-sulfophenyl]azo- $\kappa$ N2[phenylmethyl]azo- $\kappa$ N1]-4-sulfobenzoato(6-)- $\kappa$ O]-, tetrahydrogen (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



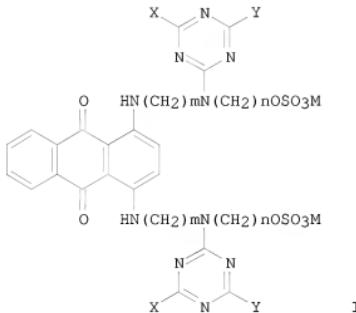
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1997:433548 CAPLUS <<LOGINID::20080225>>  
 DOCUMENT NUMBER: 127:52211

TITLE: Reactive anthraquinone dyes, their preparation and their use

INVENTOR(S): Reiher, Uwe; Russ, Werner Hubert; Brandl, Matthias  
 PATENT ASSIGNEE(S): Hoechst A.-G., Germany  
 SOURCE: Ger. Offen., 19 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19542749	A1	19970522	DE 1995-19542749	19951116
PRIORITY APPLN. INFO.:			DE 1995-19542749	19951116
OTHER SOURCE(S):	CASREACT 127:52211; MARPAT 127:52211			
GI				



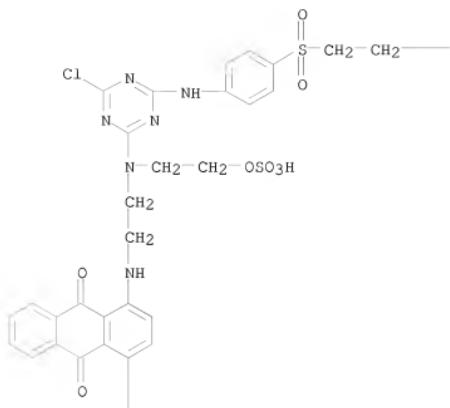
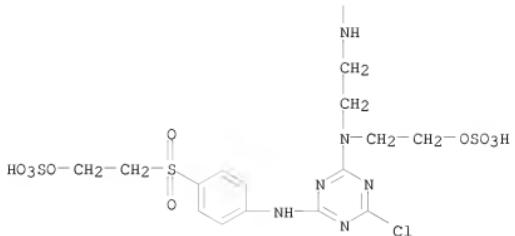
AB The dyes (I; M = H, alkali metal; X = Cl, F, optionally substituted alkoxy or amino; Y = Cl, F, amine-linked vinyl sulfone or aryl group; m, n = 1-3) are obtained from the appropriate 1,4-bis(sulfatoalkylaminoalkylamino)anthraquinones, halotriazines, and optional aromatic amine/vinyl sulfone precursors. I provide fast blue shades on fibrous substrates containing hydroxy or amide groups. In an example, 1,4-bis[2-(2-hydroxyethylamino)ethylamino]anthraquinone was sulfated and then treated with cyanuric chloride to give a reactive blue ( $\lambda_{max}$  634 nm) dye with good fastness on cotton.

IT 191038-34-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (preparation of reactive anthraquinone blue dyes for cotton)

RN 191038-3- CAPLUS

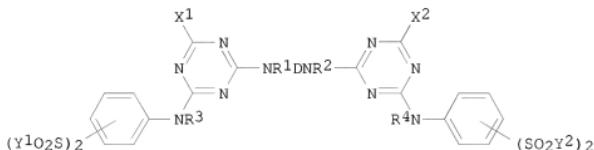
CN 9,10-Anthracenedione, 1,4-bis[[2-[[4-chloro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl][2-(sulfooxy)ethyl]amino]ethyl]amino]- (CA INDEX NAME)

—OSO<sub>3</sub>H

L23 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1996:256277 CAPLUS <<LOGINID::20080225>>  
 DOCUMENT NUMBER: 124:319668  
 TITLE: Reactive triazine dyes and dyeing or printing of  
 fibers with them

INVENTOR(S): Omura, Takashi  
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08034932	A	19960206	JP 1995-52447	19950313
JP 2590778	B2	19970312		
PRIORITY APPLN. INFO.:			JP 1995-52447	19950313
OTHER SOURCE(S):	MARPAT	124:319668		
GI				



I

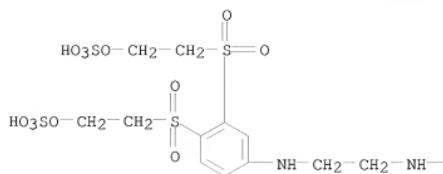
AB Triazines I [R1-4 = H, (un)substituted alkyl; X1-2 = Cl, F, (un)substituted aliphatic aromatic amino, Cl-4 alkoxy, (un)substituted PhO; Y1-2 = (CH<sub>2</sub>)<sub>2</sub>L, vinyl; D = azo-, anthraquinone-, phthalocyanine-, formazan-, or dioxazine-type anionic dye residue; L = leaving group activated by alkali] are prepared and used for dyeing or printing of fibers, especially cotton, to give colored fibers with good fastness.

IT 176206-46-5  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (in preparation of reactive triazine dyes)

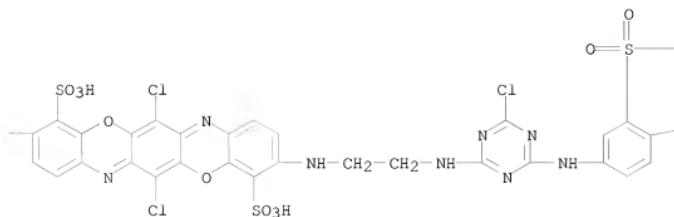
RN 176206-46-5 CAPLUS

CN 4,11-Triphenodioxazine disulfonic acid, 3-[[2-[[4-[[3,4-bis[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]ethyl]amino]-10-[[2-[[3,4-bis[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]ethyl]amino]-6,13-dichloro- (CA INDEX NAME)

PAGE 1-A

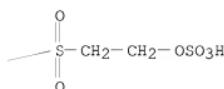


PAGE 1-B



PAGE 1-C

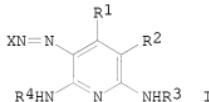
—CH<sub>2</sub>—CH<sub>2</sub>—OSO<sub>3</sub>H



L23 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1994:511467 CAPLUS <<LOGINID::20080225>>  
DOCUMENT NUMBER: 121:111467  
TITLE: Reactive pyridyl azo dyes, their manufacture and their  
use  
INVENTOR(S): Tzikas, Athanassios; Deitz, Rolf  
PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.  
SOURCE: Eur. Pat. Appl., 40 pp.

DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 581731	A2	19940202	EP 1993-810505	19930714
EP 581731	A3	19941117		
EP 581731	B1	19981209		
R: BE, CH, DE, ES, FR, GB, IT, LI, PT				
ES 2126638	T3	19990401	ES 1993-810505	19930714
US 5391717	A	19950221	US 1993-94645	19930719
JP 06179831	A	19940628	JP 1993-181293	19930722
JP 3739415	B2	20060125		
PRIORITY APPLN. INFO.:			CH 1992-2349	A 19920723
OTHER SOURCE(S):	MARPAT	121:111467		
GI				



AB The dyes (I; R1 = C1-4-alkyl; R2 = CN, carbamoyl, sulfomethyl; R3, R4 = H, optionally substituted alkyl; X = diazo component) have  $\geq 2$  fiber-reactive groups. The reactive groups may be on R3 or R4 or on X, in the form of halopyrimidine or halotriazine. At least one sulfo or sulfato group is also present. I are suitable for dyeing or printing of cellulosics or natural or synthetic polyamides with good fastness. Thus, 4-(2-sulfatoethylsulfonyl)aniline was condensed with cyanuric fluoride followed by a mixture of 2 pyridine azo dyes to provide a mixture of reactive dyes containing fluorotriazine and sulfatoethylsulfonyl groups. The mixture conferred a brilliant gold yellow shade on cotton and wool.

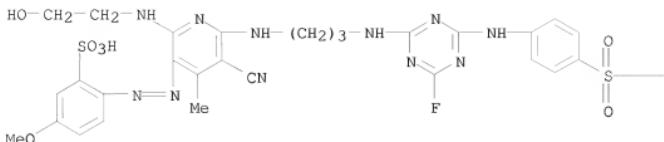
IT 155952-51-5P 155952-52-6P

RL: IMF (Industrial manufacture); PREP (Preparation)  
(preparation of, as reactive dye for cotton and wool)

RN 155952-51-5 CAPLUS

CN Benzenesulfonic acid, 2-[[5-cyano-6-[[3-[[4-fluoro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]propyl]amino]-2-[(2-hydroxyethyl)amino]-4-methyl-3-pyridinyl]azo]-5-methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



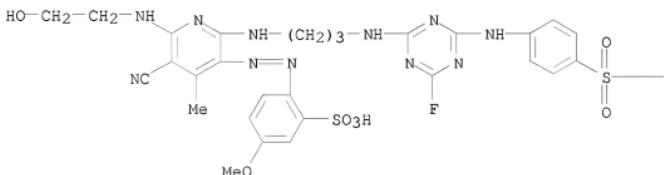
PAGE 1-B

— CH<sub>2</sub>—CH<sub>2</sub>—OSO<sub>3</sub>H

RN 155952-52-6 CAPLUS

CN Benzenesulfonic acid, 2-[(5-cyano-2-[(3-[(4-fluoro-6-[(4-[(2-yl)aminopropyl]amino]-6-[(2-hydroxyethyl)amino]-4-methyl-3-pyridinyl)azo]-5-methoxyphenyl)sulfonyl]phenyl)amino]-1,3,5-triazin-2-yl)amino]-6-[(2-hydroxyethyl)amino]-4-methyl-3-pyridinyl azo-5-methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



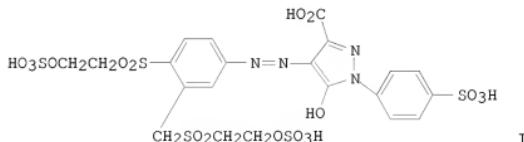
PAGE 1-B

— CH<sub>2</sub>—CH<sub>2</sub>—OSO<sub>3</sub>H

L23 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1990:499387 CAPLUS <<LOGINID::20080225>>  
DOCUMENT NUMBER: 113:99387  
TITLE: Dyes having at least two fiber-reactive groups, and  
their intermediates  
INVENTOR(S): Patsch, Manfred; Nahr, Uwe; Wirsing, Friedrich;

Jessen, Joerg L.; Pandl, Klaus; Marschner, Claus;  
 Dust, Matthias  
 PATENT ASSIGNEE(S): BASF A.-G., Germany  
 SOURCE: Eur. Pat. Appl., 81 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 352682	A2	19900131	EP 1989-113540	19890722
EP 352682	A3	19901010		
EP 352682	B1	19940202		
R: CH, DE, FR, GB, IT, LI				
DE 3825656	A1	19900322	DE 1988-3825656	19880728
JP 02073867	A	19900313	JP 1989-194394	19890728
US 5210187	A	19930511	US 1992-865744	19920409
PRIORITY APPLN. INFO.:			DE 1988-3825656	A 19880728
			US 1989-381941	B1 19890719
			US 1990-554860	B1 19900720
OTHER SOURCE(S):	CASREACT 113:99387; MARPAT 113:99387			
GI				



AB The dyes have a high color yield and are useful for dyeing hydroxyl group-containing fibers (e.g., cotton, wool). Thus, 4-(2-sulfatoethylsulfonyl)-3-(2-sulfatoethylsulfonylmethyl)aniline was diazotized and coupled with 1-(4-sulfophenyl)-3-carboxy-5-pyrazolone, forming I, which dyed cotton fast yellow shades.

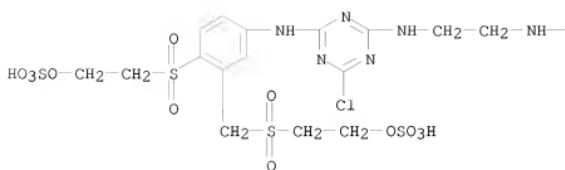
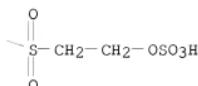
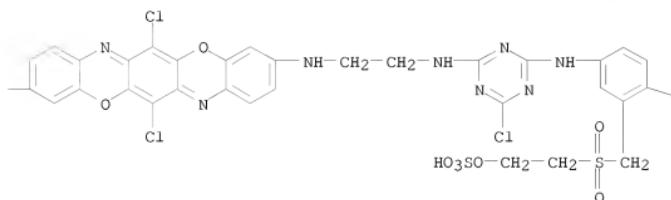
IT 127303-98-4P

RL: PREP (Preparation)

(manufacture of, as reactive blue dye for cotton)

RN 127303-98-4 CAPLUS

CN Triphenodioxazinedisulfonic acid, 6,13-dichloro-3,10-bis[[2-[[4-chloro-6-[[4-[[2-(sulfoxy)ethyl]sulfonyl]-3-[[[2-(sulfoxy)ethyl]sulfonyl]methyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]ethyl]amino]- (9CI) (CA INDEX NAME)

2 [ D1-SO<sub>3</sub>H ]IT 127278-52-8P

RL: PREP (Preparation)

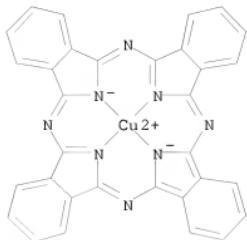
(manufacture of, as reactive turquoise dye for cotton)

RN 127278-52-8 CAPLUS

CN Cuprate(5-), [C-[[2-[[4-chloro-6-[[4-[[2-(sulfoxy)ethyl]sulfonyl]-3-[[2-(sulfoxy)ethyl]sulfonyl]methyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]ethyl]amino]sulfonato(7-

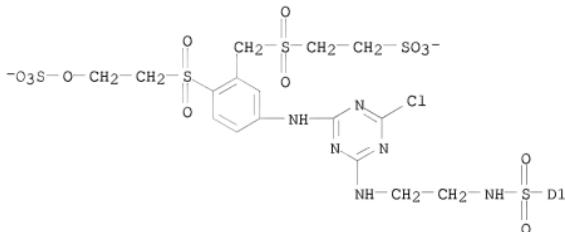
) -N29,N30,N31,N32] -, pentahydrogen (9CI) (CA INDEX NAME)

PAGE 1-A



3 [ D1-SO<sub>3</sub><sup>-</sup> ]

PAGE 2-A

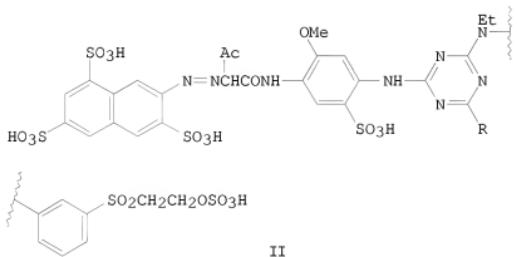
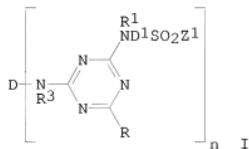


●5 H<sup>+</sup>

L23 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1989:136910 CAPLUS <<LOGINID::20080225>>  
DOCUMENT NUMBER: 110:136910  
TITLE: Mixed reactive dye compositions and dyeing and  
printing therewith  
INVENTOR(S): Harada, Naoki; Omura, Takashi; Imada, Kunihiko  
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63210170	A	19880831	JP 1987-44616	19870226
JP 0803050	B	19960117		
PRIORITY APPLN. INFO.:			JP 1987-44616	19870226
OTHER SOURCE(S):		MARPAT 110:136910		
GI				



II

AB The title compns., producing cotton dyeings with excellent leveling and reproducibility, contain  $\geq 2$  of I [D = sulfo group-containing organic dye residue; D1, D2 = (un)substituted phenylene, naphthylene; R = N(R<sub>2</sub>)D<sub>2</sub>SO<sub>2</sub>Z<sub>2</sub>; R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, Z<sub>1</sub>, Z<sub>2</sub> = vinyl, CH<sub>2</sub>CH<sub>2</sub>L; L = alkali-removable group; n = 1-3], I (R = Cl, F, Br, quaternary N atom-containing tertiary N compound residue), and I (R = NR<sub>4</sub>R<sub>5</sub>; R<sub>4</sub> = H, (un)substituted lower alkyl; R<sub>5</sub> = (un)substituted Ph, naphthyl; . A typical mixture producing level greenish-yellow cotton dyeing contained II (R = Cl) and II (R = m-NHC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>SO<sub>3</sub>H) in a 1:1 ratio.

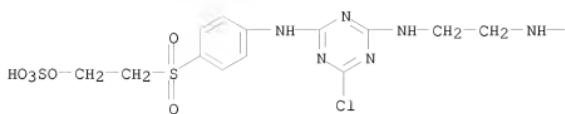
IT 119043-29-7 119636-56-5

RL: TEM (Technical or engineered material use); USES (Uses)  
(dye mixts. containing, with good reproducibility and leveling, for cotton)

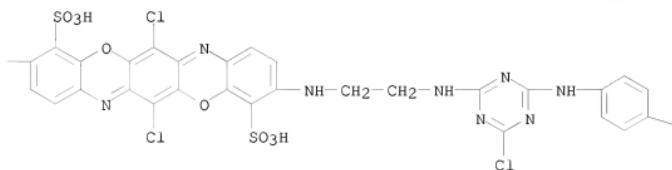
RN 119043-29-7 CAPLUS

CN 4,11-Triphenodioxazine disulfonic acid, 6,13-dichloro-3,10-bis[[2-[[4-chloro-6-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]ethyl]amino]- (CA INDEX NAME)

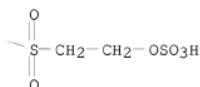
PAGE 1-A



PAGE 1-B

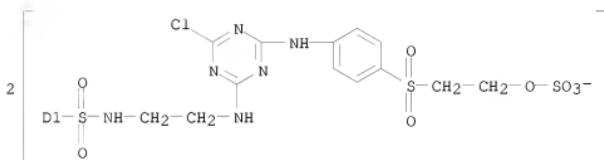
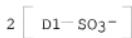
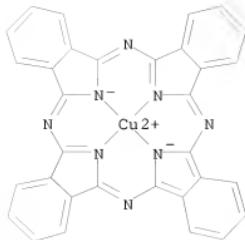


PAGE 1-C



RN 119636-56-5 CAPLUS

CN Cuprate(4-), [C,C-bis[[2-[[4-chloro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]ethyl]amino]sulfonyl]-29H,31H-phthalocyanine-C,C-disulfonato(6-)]-, tetrahydrogen (9CI) (CA INDEX NAME)



L23 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1988:592172 CAPLUS <<LOGINID::20080225>>  
 DOCUMENT NUMBER: 109:192172  
 TITLE: Triphenodioxazine reactive dyes and process for their manufacture  
 INVENTOR(S): Sawamoto, Hirokazu; Harada, Naoki; Omura, Takashi  
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 35 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

EP 275022	A2	19880720	EP 1988-100062	19880105
EP 275022	A3	19890125		
EP 275022	B1	19920506		
R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 63170463	A	19880714	JP 1987-1372	19870107
JP 07116376	B	19951213		
US 4933446	A	19900612	US 1987-133605	19871216
ES 2037110	T3	19930616	ES 1988-100062	19880105
JP 1987-1372 A 19870107				
PRIORITY APPLN. INFO.:				
OTHER SOURCE(S): MARPAT 109:192172				
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The title compds. I [Q = SO<sub>3</sub>H, OH, halogen, alkoxy, (un)substituted PhO, NH<sub>2</sub>; R = halogen, alkyl, alkoxy, SO<sub>3</sub>H; V = direct bond, NR<sub>3</sub>; R<sub>3</sub> = H, (un)substituted alkyl; X = direct bond, divalent aliphatic, divalent alicyclic, divalent arylaliph., divalent aromatic bridging group; Y = (un)substituted phenylene, (un)substituted naphthylene; Z = SO<sub>2</sub>CH:CH<sub>2</sub>, SO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>Cl; Z<sub>1</sub> = alkali-cleavable substituent], useful for dyeing or printing hydroxyl or amide group-containing textiles, are prepared 1,4-Diamino-2-methoxy-5-benzenesulfonic acid was condensed with chloranil, and the condensate cyclocondensed in the presence of 28% oleum to produce a diamino-substituted triphenodioxazine intermediate, which was condensed with cyanuric chloride, and the dichlorotriazine group-containing intermediate condensed with 1-aminobenzene-3-β-sulfatoethylsulfone, forming II,  $\lambda_{max}$  600 nm, which dyed cotton in a fast red-blue shade.

IT 117331-43-8P

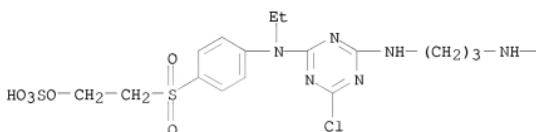
RL: PREP (Preparation)

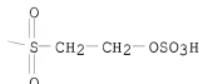
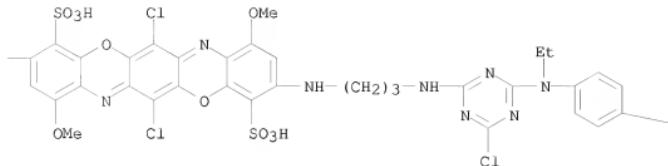
(manufacture of, as blue reactive dye)

RN 117331-43-8 CAPLUS

CN 4,11-Triphenodioxazinedisulfonic acid, 6,13-dichloro-3,10-bis{[3-[(4-chloro-6-[ethyl[4-[(2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]propyl]amino]-1,8-dimethoxy- (9CI) (CA INDEX NAME)

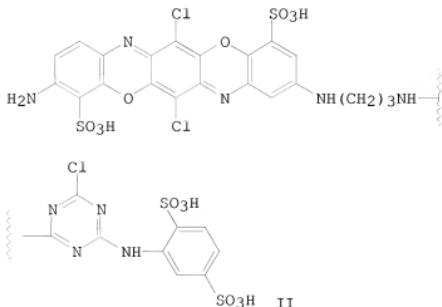
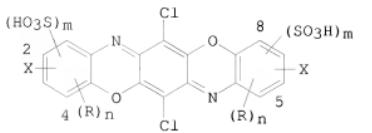
PAGE 1-A





L23 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1988:456575 CAPLUS <>LOGINID::20080225>>  
 DOCUMENT NUMBER: 109:56575  
 TITLE: Triphenodioxazine reactive dyes, their preparation and  
 use  
 INVENTOR(S): Seitz, Karl  
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.  
 SOURCE: Eur. Pat. Appl., 15 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 260227	A1	19880316	EP 1987-810514	19870907
EP 260227	B1	19910116		
R: BE, CH, DE, FR, GB, IT, LI				
US 4841049	A	19890620	US 1987-92798	19870903
JP 63075066	A	19880405	JP 1987-225445	19870910
JP 2512493	B2	19960703		
PRIORITY APPLN. INFO.:			CH 1986-3666	A 19860912
OTHER SOURCE(S):	MARPAT	109:56575		
GI				



AB The title compds. I [R = Cl-4 alkyl, Cl-4 alkoxy, halogen, carboxy, carbamoyl, N-(Cl-4 alkyl)carbamoyl, N,N-(di-Cl-4-alkyl)carbamoyl, Cl-4 alkylsulfonyl, sulfamoyl, N-(Cl-4 alkyl)sulfamoyl, N,N-(di-Cl-4-alkyl)sulfamoyl; one X is H2N and the other is -N(R1)AN(R2)Y; A = (un)substituted C2-4 alkylene, (un)substituted cyclohexylene; R1, R2 = H, (un)substituted Cl-4 alkyl; Y = fiber-reactive residue; m = 1, 2; n = 0-2], useful for dyeing or printing of cellulosic fibers, are prepared. I [X = 3-NH2, 7-NH(CH2)3NH2, m = 1 (positions 4 and 8); n = 0] was condensed with a dichlorotriazine-containing condensation product prepared from the reaction of equimolar amts. of cyanuric chloride and aniline-2,5-disulfonic acid, forming II, having  $\lambda_{max}$  616 nm, which dyed cotton in a pure blue shade.

IT 115499-02-0P

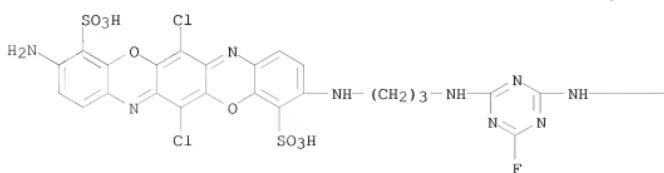
RL: PREP (Preparation)

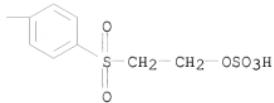
(manufacture of, as reactive dye for cellulosic fibers)

RN 115499-02-0 CAPLUS

CN 4,11-Triphenodioxazine disulfonic acid, 3-amino-6,13-dichloro-10-[[3-[[4-fluoro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]propyl]amino]- (CA INDEX NAME)

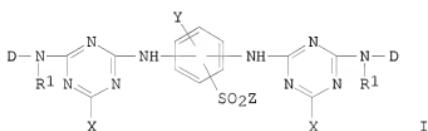
PAGE 1-A





L23 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1987:638574 CAPLUS <<LOGINID::20080225>>  
 DOCUMENT NUMBER: 107:238574  
 TITLE: Reactive dyes for cotton  
 INVENTOR(S): Kato, Yoshiaki  
 PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62172062	A	19870729	JP 1986-13375	19860124
JP 06062873	B	19940817		
PRIORITY APPLN. INFO.:			JP 1986-13375	19860124
GI				

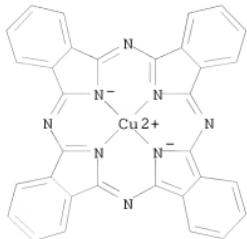


AB The title dyes were prepared having the general formula I [D = monoazo, polyazo, metal-containing azo, anthraquinone, phthalocyanine, formazan dye residue; R1 = H, (un)substituted alkyl; X = halogen; Y = H, halogen, (un)substituted alkyl; Z = CH:CH2, CH2CH2OSO3H]. 3,5-(H2N)2C6H3SO2CH2CH2OSO3H was condensed 1:2 (molar) with 2-[4-(2,4-dichloro-s-triazin-6-ylamino)-2-methylphenylazo]naphthalene-4,8-disulfonic acid and salted to give the corresponding I, yellow on cotton. The dyes prepared can be used with disperse dyes in 1-bath-1-step dyeing of polyester-cotton blends.

IT 111611-61-1  
 RL: TEM (Technical or engineered material use); USES (Uses)

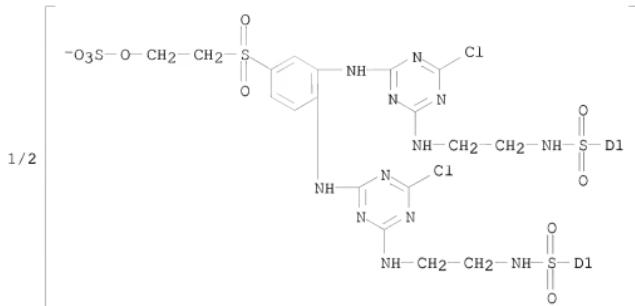
(dye, for cotton)  
RN 111611-61-1 CAPLUS  
CN Cuprate(5-), [ $\mu$ -{[C,C'-{[4-[(2-sulfoxy)ethyl]sulfonyl]-1,2-phenylene}bis(imino(6-chloro-1,3,5-triazine-4,2-diyl)imino-2,1-ethanediyliminosulfonyl]}bis[C-(aminosulfonyl)-29H,31H-phthalocyanine-C,C-disulfonato](9-)N29,N30,N31,N32:N29',N30',N31',N32']] $\mu$ -, pentahydrogen (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

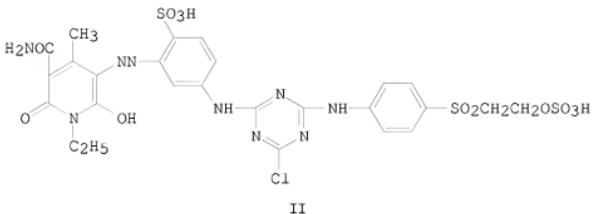
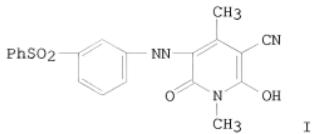




95 H+

L23 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1986:574353 CAPLUS <>LOGINID::20080225>>  
DOCUMENT NUMBER: 105:174353  
ORIGINAL REFERENCE NO.: 105:28099a,28102a  
TITLE: Dyeing of polyester-cellulose blends  
INVENTOR(S): Imada, Kunihiro; Sasakura, Masaaki; Ishizuka, Yoshio;  
Omura, Takashi; Oshima, Taizo  
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61028084	A	19860207	JP 1984-145777	19840712
JP 06011947	B	19940216		
PRIORITY APPLN. INFO.:			JP 1984-145777	19840712
GI				



AB Blend fibers are dyed with disperse dyes and reactive dyes with a 1-bath-2-stage process, and the reactive dyes for cellulosic fibers contain  $\geq 1$  nucleophilic substitution reaction-type reactive group and  $\geq 1$  nucleophilic addition reaction-type reactive group. The process includes dyeing a polyester with a disperse dye at 100-140° and pH 4-7.5, adjusting to 80-95° and pH 8-9.5, and dyeing cellulose with a reactive dye at 50-70° and pH 10-13. Thus, a polyester-cotton blend was dyed with I and II.

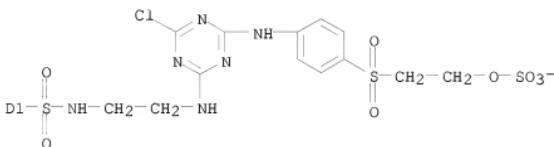
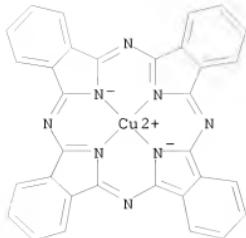
IT 104744-96-9

RL: USES (Uses)

(reactive dyes, dyeing of polyester-cellulose blends with disperse dyes and)

RN 104744-96-9 CAPLUS

CN Cuprate(2-), [C-[[2-[4-chloro-6-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]ethyl]amino]sulfonyl]-29H,31H-phthalocyanine-C-sulfonato(4-)-N29,N30,N31,N32-, dihydrogen (9CI) (CA INDEX NAME)



L23 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1985:133547 CAPLUS &lt;&lt;LOGINID::20080225&gt;&gt;

DOCUMENT NUMBER: 102:133547

ORIGINAL REFERENCE NO.: 102:20963a,20966a

TITLE: Anthraquinon dyes with fiber-reactive  
monohalotriazinyl and vinylsulfone groupsINVENTOR(S): Kayane, Yutaka; Omura, Takashi; Otake, Katsumasa;  
Takeshita, AkiraPATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd. , Japan  
SOURCE: Ger. Offen., 60 pp.DOCUMENT TYPE: Patent  
LANGUAGE: German

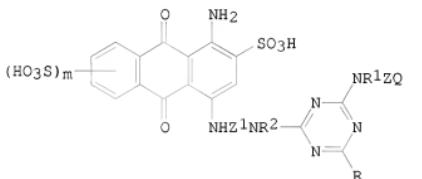
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----

DE 3419072	A1	19841129	DE 1984-3419072	19840522
DE 3419072	C2	19951221		
JP 59215361	A	19841205	JP 1983-91215	19830523
JP 04032868	B	19920601		
JP 59217765	A	19841207	JP 1983-92944	19830525
JP 60092357	A	19850523	JP 1983-201835	19831026
JP 04060146	B	19920925		
US 4631341	A	19861223	US 1984-610750	19840516
CH 659078	A5	19861231	CH 1984-2520	19840522
RITY APPLN. INFO.:			JP 1983-91215	A 19830523
			JP 1983-92944	A 19830525
			JP 1983-201835	A 19831026

OTHER SOURCE(S): CASREACT 102:133547; MARPAT 102:133547  
GI



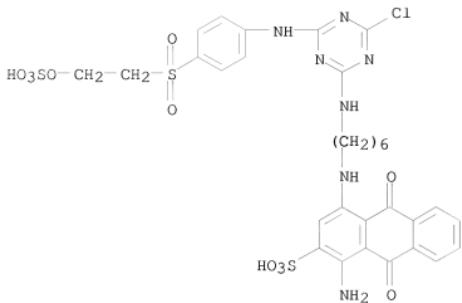
AB Fast blue dyes of general structure I are prepared, where R = halogen; Q = SO<sub>2</sub>CH<sub>2</sub>:CH<sub>2</sub> or SO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>X (X = alkali-eliminable group); Z1 = (un)substituted phenylene or naphthylene; Z1 = optionally Me-substituted cyclohexanediyl, (un)substituted phenylenemethylene, or C<sub>2</sub>-6 alkylene; R1 and R2 = H or (un)substituted lower alkyl; and m = 0, 1, or 2. Thus, reaction of cyanuric chloride [108-77-0] with 4-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>OSO<sub>3</sub>H [2494-89-5] at 5-10° and then with Na 1-amino-4-(4-aminocyclohexylamino)anthraquinone-2-sulfonate [95152-99-7] at 20-30°, followed by salting, gave I (R = Cl; R1 = R2 = H; ZQ = p-C<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>OSO<sub>3</sub>H; Z1 = 1,4-cyclohexanediyl; m = 0; Na salt) [95153-12-1] ( $\lambda_{max}$  622 nm), a brilliant blue dye for cotton with good fastness to light and perspiration. Number of other I were prepared.

IT 95153-08-5

RL: TEM (Technical or engineered material use); USES (Uses)  
(dye, for cotton)

BN 85153-08-5 CARLIUS

AN 95135-08-0 CAS 605  
CN 2-Anthracenesulfonic acid, 1-amino-4-[[6-[[4-chloro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]hexyl]amino]-9,10-dihydro-9,10-dioxo- (CA INDEX NAME)



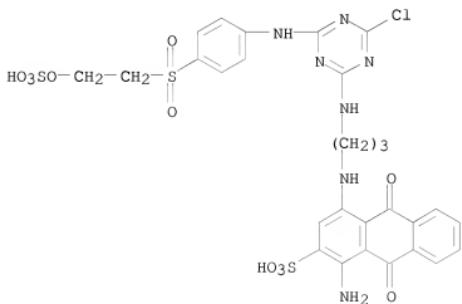
IT 95153-07-4P 95153-09-6P

RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(manufacture of, as reactive dye for cotton)

RN 95153-07-4 CAPLUS

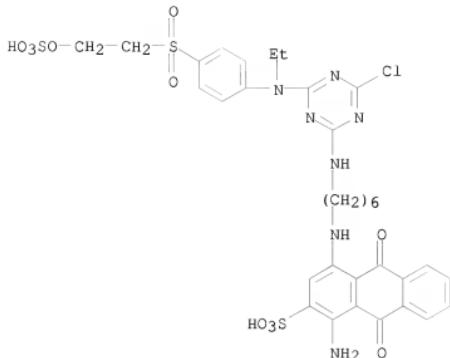
CN 2-Anthracenesulfonic acid, 1-amino-4-[[3-[[4-chloro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]propyl]amino]-9,10-dihydro-9,10-dioxo-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

RN 95153-09-6 CAPLUS

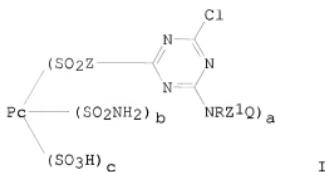
CN 2-Anthracenesulfonic acid, 1-amino-4-[[6-[[4-chloro-6-[[ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]hexyl]amino]-9,10-dihydro-9,10-dioxo-, disodium salt (9CI) (CA INDEX NAME)



2 Na

L23 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1985:26388 CAPLUS <>LOGINID::20080225>>  
DOCUMENT NUMBER: 1021:26388  
ORIGINAL REFERENCE NO.: 1021:4343a,4346a  
TITLE: Phthalocyanine fiber reactive dyes  
INVENTOR(S): Omura, Takashi; Takahashi, Mikoto; Harada, Naoki;  
Takeshita, Akira  
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd. , Japan  
SOURCE: Ger. Offen., 42 pp.  
Coden: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3405204	A1	19840823	DE 1984-3405204	19840214
JP 59152958	A	19840831	JP 1983-25986	19830217
JP 01020657	B	19890418		
US 4505714	A	19850319	US 1984-579546	19840213
CH 659820	A5	19870227	CH 1984-751	19840216
PRIORITY APPLN. INFO.:			JP 1983-25986	A 19830217
OTHER SOURCE(S):	MARPAT 102:26388			
GI				



AB Reactive phthalocyanine dyes of general structure I are prepared, where  $\text{Pc}$  = metal-free or metal-containing phthalocyanine residue,  $\text{R}$  = short-chain alkyl,  $\text{Z} = \text{NR}_1(\text{CH}_2)_n\text{NR}_2$  ( $\text{R}_1, \text{R}_2 = \text{H, Me, Et; n = 2-6}$ ) or 1,4-piperazinediyl,  $\text{Z}_1 = (\text{un})\text{substituted phenylene or naphthylene, Q = SO}_2\text{CH:CH}_2$  or  $\text{SO}_2\text{CH}_2\text{CH}_2\text{R}_3$  ( $\text{R}_3 = \text{alkali-removable group}$ ),  $a = 1-3$ ,  $b$  and  $c = 0-3$ , and  $0 < a + b + c \leq 4$ . I give light- and wetfast brilliant turquoise dyeings and prints on cellulosic fibers. Thus, reaction of  $\text{CuPc}(\text{SO}_2\text{Cl})_3\text{SO}_3\text{H}$  with  $\text{H}_2\text{NCH}_2\text{CH}_2\text{NH}_2$  and aqueous  $\text{NH}_3$ , then with cyanuric chloride, and finally with 3-Et $\text{NHC}_6\text{H}_4\text{SO}_2\text{CH}_2\text{CH}_2\text{SO}_3\text{H}$  gave I ( $\text{Z} = \text{NHCH}_2\text{CH}_2\text{NH, R = Et, Z}_1 = \text{m-C}_6\text{H}_4, \text{Q} = \text{SO}_2\text{CH}_2\text{CH}_2\text{SO}_3\text{Na, a = 1.5, b = 0.5, c = 2}$ ), a water-soluble dye with  $\lambda_{\text{max}} 670 \text{ nm}$ . Other I were similarly prepared

IT 93971-97-2P

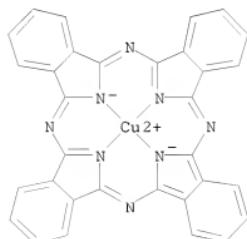
RL: PREP (Preparation)

(manufacture of, as reactive dye for cellulose fibers)

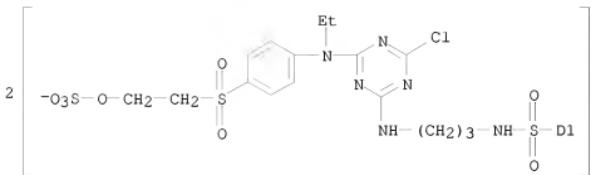
RN 93971-97-2 CAPLUS

CN Cuprate(4-), [C,C-bis[[3-[4-chloro-6-[ethyl[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]propyl]amino]sulfonyl]-29H,31H-phthalocyanine-C,C-disulfonato(5--N29,N30,N31,N32)-, tetrasodium (9CI) (CA INDEX NAME)

PAGE 1-A



2 [  $\text{D1-SO}_3^-$  ]



● 4 Na<sup>+</sup>

IT 93971-96-1

RL: USES (Uses)

(reactive dye, for cellulose fibers)

RN 93971-96-1 CAPLUS

CN Cuprate(3-), [C-(aminosulfonyl)-C-[[2-[[4-chloro-6-[ethyl[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]ethyl]amino]sulfonyl]-29H,31H-phthalocyanine-C,C-disulfonato(5-)N29,N30,N31,N32]-, trihydrogen (9CI) (CA INDEX NAME)

